CONTENTS OF VOLUME 17

Vol. 17 No. 1 August 1990

KIRK R. SMITH and DILIP R. AHUJA / Toward a Greenhouse Equivalence Index: The Total Exposure Analogy. An Editorial 1

Editorial Review Essay
S. Fred Singer (ed.), *Global Climate Change, Human and Natural Influences*; Albert K. Bates, *Climate in Crisis, The Greenhouse Effect and What We Can Do*; Jonathan Weiner, *The Next Hundred Years, Shaping the Fate of our Living Earth* (JOHN S. PERRY) 9

D. S. SCHIMEL, W. J. PARTON, T. G. F. KITTEL, D. S. OJIMA, and C. V. COLE / Grassland Biogeochemistry: Links to Atmospheric Processes 13

THOMAS E. CROLEY II / Laurentian Great Lakes Double-CO_2 Climate Change Hydrological Impacts 27

HOLLY C. HARTMANN / Climate Change Impacts on Laurentian Great Lakes Levels 49

A. HENDERSON-SELLERS / Australian Public Perception of the Greenhouse Issue 69

J. NEUMANN / The 1810s in the Baltic Region, 1816 in Particular: Air Temperatures, Grain Supply and Mortality 97

R. P. KANE and N. R. TEIXEIRA / Power Spectrum Analysis of the Time-Series of Annual Mean Surface Air Temperatures 121

Book Reviews
Paul R. Ehrlich and Jonathan Roughgarden, *The Science of Ecology* (CHARLES A. S. HALL and JOSEPH D. CORNELL) 131
E. Antal and M. H. Glantz (eds.), *Identifying and Coping with Extreme Meteorological Events* (JILL JÄGER) 135
Manfred Domrös and Peng Gongbing, *The Climate of China* (TOM BEER) 137
Ye Duzheng, Fu Congbin, Chao Jiping, and M. Yoshino (eds.), *The Climate of China and Global Climate* (TOM BEER) 138

Vol. 17 Nos. 2–3 December 1990

SPECIAL ISSUE: INTERNATIONAL SATELLITE LAND SURFACE CLIMATOLOGY PROJECT (ISLSCP)

G. ASRAR and R. E. MURPHY / Interdisciplinary Research and Retrospective Satellite Data Analysis in Studying the Biosphere-Atmosphere Coupling

ERIC A. SMITH and BYUNG-JU SOHN / Surface Forcing on Interannual Variations in the Radiation Balance over North Africa Part I: Partitioning the Surface and Cloud Forcing 147

B. J. CHOUDHURY / A Comparative Analysis of Satellite-Observed Visible Reflectance and 37 GHz Polarization Difference to Assess Land Surface Change over the Sahel Zone, 1982–1986 193

SHARON E. NICHOLSON, MICHAEL L. DAVENPORT, and ADA R. MALO / A Comparison of the Vegetation Response to Rainfall in the Sahel and East Africa, Using Normalized Difference Vegetation Index from NOAA AVHRR 209

NEVIN A. BRYANT, LEE F. JOHNSON, ANTHONY J. BRAZEL, ROBERT C. BALLING, CHARLES F. HUTCHINSON, and LOUISA R. BECK / Measuring the Effect of Overgrazing in the Sonoran Desert 243

PAUL M. SEEVERS, FRANK C. SADOWSKI, and DONALD T. LAUER / An Investigation of Spectral Change as Influenced by Irrigation and Evapotranspiration Volume Estimation in Western Nebraska 265

LOUISA R. BECK, CHARLES F. HUTCHINSON, and JEFFERY ZAUDERER / A Comparison of Greenness Measures in Two Semi-Arid Grasslands 287

HERBERT D. GROVER and H. BRAD MUSICK / Shrubland Encroachment in Southern New Mexico, U.S.A.: An Analysis of Desertification Processes in the American Southwest 305

DAVID J. MACKINNON, DIANA F. ELDER, PAULA J. HELM, MARLENE F. TUESINK, and CATHERINE A. NIST / A Method of Evaluating Effects of Antecedent Precipitation on Duststorms and its Application to Yuma, Arizona, 1981–1988 331